

### **ABSTRACT OF THE DISCLOSURE**

A device and system for simulating the flicker of candle flame is provided by the present invention. A series of independent charging and discharging circuits are provided that produce power waveforms having duty cycles that vary from a highest duty cycle to a lowest duty cycle. The power waveforms are provided to a series of LEDs arranged in a vertical stack. The lowest duty cycle power waveform is provided to the highest LED in the stack and the highest duty cycle power waveform is provided to the lowest LED in the stack. An approximately flame shaped housing that is partially translucent is positioned around the vertical stack of LEDs such that the light from the LEDs is visible while the LEDs themselves are not. A solar panel and an associated rechargeable battery are used to power the device.

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